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CLAIMS:

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- 1. A decoding apparatus for decoding a data stream comprising a plurality of data blocks, said apparatus comprising:
- a. size determination means (102) for processing a subset of the information of said data stream in order to determine the length of a first data block to be decoded;
- 5 b. separation means (104) for separating said first data block from said data stream based on said determined length; and
 - c. parallel processing means (20) for processing a subsequent second data block while said first data block is decoded.
- 2. Apparatus according to claim 1, wherein said size determination means (102) is adapted to generate a size information and to supply said size information (f_sz_of_blk) to said separation means (104).
- 3. Apparatus according claim 2, wherein said size information is used by said separation means (104) to separate said first data block from said data stream.
 - 4. Apparatus according to any one of the preceding claims, wherein said processing of said size determination means (102) is an accumulation processing for accumulating a determined bit number of predetermined portions of said first data block.
 - 5. Apparatus according to claim 4, wherein said plurality of data blocks are audio blocks of a media application frame, and said predetermined portions are mantissa portions.
- 6. Apparatus according to claim 4 or 5, wherein said determined number of bits is obtained from a bit allocation processing.
 - 7. Apparatus according to any one of claims 4 to 6, wherein said bit allocation processing is based on at least one psychoacoustic model, wherein power spectral densities are compared with masking curves in order to reveal said bit number.

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8. Apparatus according to any one of claims 5 to 7, wherein said parallel processing means (20) are arranged to parse bit stream information of a first frame of said data stream and then to jump to the start of a subsequent second frame, without waiting for the end of parsing of a side information of audio blocks provided in said first frame.

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- 9. Apparatus according to any one of claims 8, wherein said separation means (104) are arranged to unpack said side information of a first audio block, then parse and send an exponent information to a first processing unit of said parallel processing means (20), a bit allocation information to a second processing unit of said parallel processing means (20), and a mantissa block to a third processing unit of said parallel processing means (20), and then jump to a second audio block.
- 10. A method of decoding a data stream comprising a plurality of data blocks, said method comprising the steps of:
 - processing a subset of the information of said data stream in order to determine the length of a first data block to be decoded;
 - separating said first data block from said data stream based on said determined length; and
- processing a subsequent second data block while said first data block is decoded.